

Table R-12: 1999 Key Source Tier 1 Analysis - Level Assessment

IPCC Source Categories	Direct Greenhouse Gas	Base Year Estimate (Tg CO ₂ Eq.)	Current Year Estimate (Tg CO ₂ Eq.)	Level Assessment	Cumulative Total
CO ₂ Emissions from Stationary Combustion - Coal	CO ₂	1,697.29	1,961.09	0.29	0.29
Mobile Combustion: Road & Other	CO ₂	1,244.98	1,487.68	0.22	0.50
CO ₂ Emissions from Stationary Combustion - Gas	CO ₂	976.63	1,148.19	0.17	0.67
CO ₂ Emissions from Stationary Combustion - Oil	CO ₂	669.99	666.10	0.10	0.77
Direct N ₂ O Emissions from Agricultural Soils	N ₂ O	193.71	216.84	0.03	0.80
CH ₄ Emissions from Solid Waste Disposal Sites	CH ₄	212.07	203.73	0.03	0.83
Mobile Combustion: Aviation	CO ₂	176.88	186.77	0.03	0.86
Fugitive Emissions from Natural Gas Operations	CH ₄	122.01	120.28	0.02	0.87
CH ₄ Emissions from Enteric Fermentation in Domestic Livestock	CH ₄	117.85	116.58	0.02	0.89
Indirect N ₂ O Emissions from Nitrogen Used in Agriculture	N ₂ O	73.83	80.16	0.01	0.90
CO ₂ Emissions from Iron and Steel Production	CO ₂	85.41	64.38	0.01	0.91
Fugitive Emissions from Coal Mining and Handling	CH ₄	87.12	63.69	0.01	0.92
Mobile Combustion: Road & Other	N ₂ O	48.56	56.50	0.01	0.93
Emissions from Substitutes for Ozone Depleting Substances	Several	0.94	50.86	0.01	0.94
CO ₂ Emissions from Cement Production	CO ₂	33.28	39.99	0.01	0.94
CH ₄ Emissions from Manure Management	CH ₄	31.28	38.89	0.01	0.95
Mobile Combustion: Marine	CO ₂	48.60	38.58	0.01	0.95
HFC-23 Emissions from HCFC-22 Manufacture	HFCs	34.98	30.41	<0.01	0.96
CH ₄ Emissions from Wastewater Handling	CH ₄	24.08	28.16	<0.01	0.96
CO ₂ Emissions from Waste Incineration	CO ₂	14.07	23.90	<0.01	0.97
Fugitive Emissions from Oil Operations	CH ₄	27.49	21.60	<0.01	0.97
CO ₂ Emissions from Ammonia Production and Urea Application	CO ₂	19.31	20.61	<0.01	0.97
N ₂ O Emissions from Nitric Acid Production	N ₂ O	17.85	20.12	<0.01	0.98
N ₂ O Emissions from Manure Management	N ₂ O	16.18	17.35	<0.01	0.98
SF ₆ Emissions from Electrical Equipment	SF ₆	32.10	16.40	<0.01	0.98
N ₂ O Emissions from Wastewater Handling	N ₂ O	12.71	15.11	<0.01	0.98
Non-CO ₂ Emissions from Stationary Combustion	N ₂ O	12.52	13.72	<0.01	0.99
CO ₂ Emissions from Lime Production	CO ₂	11.24	13.47	<0.01	0.99
PFC Emissions from Aluminum Production	PFCs	18.11	8.94	<0.01	0.99
CH ₄ Emissions from Rice Production	CH ₄	7.12	8.29	<0.01	0.99
PFC, HFC, and SF ₆ Emissions from Semiconductor Manufacture	SF ₆	2.86	7.73	<0.01	0.99
CO ₂ Emissions from Limestone and Dolomite Use	CO ₂	5.47	7.67	<0.01	0.99
Non-CO ₂ Emissions from Stationary Combustion	CH ₄	8.14	7.38	<0.01	0.99
CO ₂ Emissions from Natural Gas Flaring	CO ₂	5.51	6.68	<0.01	0.99
SF ₆ Emissions from Magnesium Production	SF ₆	5.37	6.01	<0.01	0.99
CO ₂ Emissions from Aluminum Production	CO ₂	6.31	5.90	<0.01	1.00
N ₂ O Emissions from Adipic Acid Production	N ₂ O	15.20	5.48	<0.01	1.00

N ₂ O Emissions from N ₂ O Product Usage	N ₂ O	4.30	4.79	<0.01	1.00
Mobile Combustion: Road & Other	CH ₄	4.73	4.26	<0.01	1.00
CO ₂ Emissions from Soda Ash Manufacture and Consumption	CO ₂	4.14	4.22	<0.01	1.00
CO ₂ Emissions from Ferroalloys	CO ₂	1.98	2.00	<0.01	1.00
CO ₂ Emissions from Titanium Dioxide Production	CO ₂	1.31	1.85	<0.01	1.00
Mobile Combustion: Aviation	N ₂ O	1.71	1.82	<0.01	1.00
CH ₄ Emissions from Petrochemical Production	CH ₄	1.17	1.67	<0.01	1.00
CO ₂ Emissions from CO ₂ Consumption	CO ₂	0.90	1.21	<0.01	1.00
CH ₄ Emissions from Agricultural Residue Burning	CH ₄	0.68	0.76	<0.01	1.00
N ₂ O Emissions from Agricultural Residue Burning	N ₂ O	0.37	0.44	<0.01	1.00
Mobile Combustion: Marine	N ₂ O	0.36	0.44	<0.01	1.00
CO ₂ Emissions from Stationary Combustion - Geothermal Energy	CO ₂	0.40	0.38	<0.01	1.00
N ₂ O Emissions from Waste Incineration	N ₂ O	0.29	0.23	<0.01	1.00
Mobile Combustion: Aviation	CH ₄	0.16	0.15	<0.01	1.00
Mobile Combustion: Marine	CH ₄	0.07	0.08	<0.01	1.00
CH ₄ Emissions from Silicon Carbide Production	CH ₄	0.03	0.02	<0.01	1.00
TOTAL		6,139.64	6,849.54	1.00	

Note: Sinks (e.g., LUCF, Landfill Carbon Storage) are not included in this analysis.